

# Ceramic High Pass Filter

## HFCN-2275+ HFCN-2275

50Ω 2450 to 7000 MHz



### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C

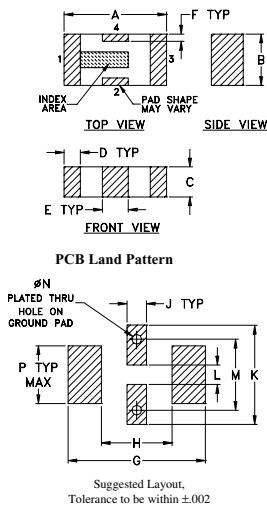
\* Passband rating, derate linearly to 3W at 100°C ambient.

### Pin Connections

RF IN	1**
RF OUT	3**
GROUND	2,4

\*\* RF IN & RF OUT can be interchanged

### Outline Drawing



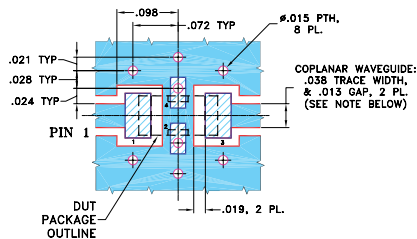
### Outline Dimensions (inch)

A	B	C	D	E	F	G
.126	.063	.037	.020	.032	.009	.169
3.20	1.60	0.94	0.51	0.81	0.23	4.29

H	J	K	L	M	N	P	wt
.087	.024	.122	.024	.087	.012	.071	grams
2.21	0.61	3.10	0.61	2.21	0.30	1.80	.020

### Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
  - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Features

- low cost
- small size
- 7 sections
- temperature stable
- excellent power handling, 7W
- hermetically sealed

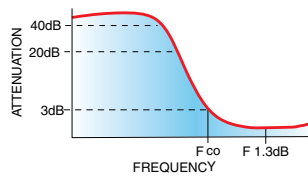
### Applications

- sub-harmonic rejection
- transmitters/receivers
- lab use

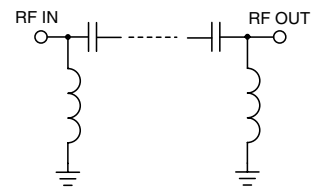
### Electrical Specifications (T<sub>AMB</sub> = 25°C)

STOP BAND (MHz) Min.	f <sub>co</sub> , MHz Nom.	PASSBAND (MHz)	VSWR (:1) Typ.	POWER INPUT (W)	NO. OF SECTIONS
(loss > 40 dB) (loss > 20 dB)	(loss 3 dB) Typ.	(loss < 1.3 dB) (loss < 2 dB) Max. Typ.	Frequency (MHz) Stopband 1.5:1		
1400 1770	2275	2640-6230 2450-7000	20:1 2580-6000	7	7

### typical frequency response

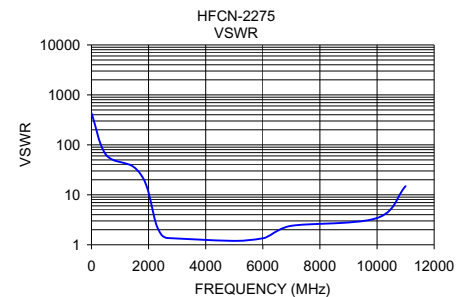
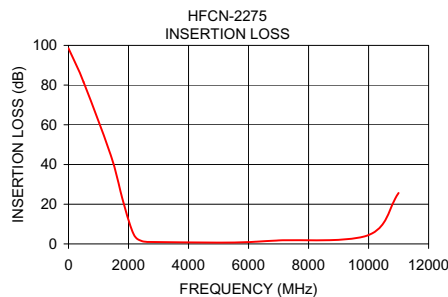


### electrical schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	98.51	434.30
500.00	81.55	64.35
1400.00	45.01	38.61
1770.00	24.31	23.49
1980.00	12.96	12.26
2150.00	5.62	4.70
2275.00	2.75	2.50
2450.00	1.39	1.58
2580.00	1.08	1.41
2640.00	0.99	1.37
5000.00	0.65	1.20
6000.00	0.89	1.35
6230.00	1.09	1.52
7000.00	1.76	2.40
10000.00	4.48	3.43
11000.00	25.63	14.87



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RF/IF MICROWAVE COMPONENTS

REV. F  
M102713  
HFCN-2275  
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